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SURFACE TRANSPORTATION BOARD

STB Ex Parte No. 558 (Sub-No. 3)

RAILROAD COST OF CAPITAL — 1999

Decided: June 6, 2000

Upon review of the evidence tendered in this proceeding, the Board finds that in 1999, the railroad industry had a composite after-tax cost of capital of 10.8%, based on: (1) a current cost of debt of 7.2%; (2) a current cost of common equity capital of 12.9%; (3) a cost of preferred equity capital of 6.3%; and (4) a capital structure mix of 35.5% debt, 62.7% common equity, and 1.8% preferred equity capital.

BY THE BOARD:

One of the Surface Transportation Board's regulatory responsibilities is the annual determination of the railroad industry's cost of capital. This determination is one component used in evaluating the adequacy of railroad revenues each year under the procedures and standards mandated by Congress in the Railroad Revitalization and Regulatory Reform Act of 1976) (4R Act) and promulgated in *Standards for Railroad Revenue Adequacy*, 364 I.C.C. 803 (1981), revised, 3 I.C.C.2d 261 (1986). This finding may also be used in other regulatory proceedings, including, but not necessarily limited to, those involving the prescription of maximum reasonable rate levels, the proposed abandonments of rail lines, and the setting of compensation for disputed trackage rights fees.

The most recent determination of the railroad industry's cost of capital was for the year 1998, in *Railroad Cost of Capital - 1998*, STB Ex Parte No. 558 (Sub-No. 2) (STB served May 17, 1999) *(Cost 98)*. The instant proceeding, instituted in *Railroad Cost of Capital — 1999*, STB Ex Parte No. 558 (Sub-No. 3) (STB served Dec. 10, 1999), updates the railroad industry's cost of capital for the year 1999.

The only party to provide evidence in this proceeding was the Association of American Railroads (AAR). The AAR concluded that the composite after-tax cost of capital for the railroad industry for 1999 was 10.75%, slightly higher than the 1998 cost of capital rate of 10.7%.

Consistent with previous cost of capital proceedings, the AAR determined the overall railroad industry cost of capital rate using a "composite railroad" comprised of Class I carriers

controlled by selected major railroad holding companies. The AAR's selection of these companies was based on criteria developed in *Railroad Cost of Capital — 1984*, 1 I.C.C.2d 989 (1985).[1] The following companies which met these criteria are included: Burlington Northern Santa Fe Corporation (BNSF), CSX Corporation (CSX), Kansas City Southern Corporation (KCS), Norfolk Southern Corporation (NSC), and the Union Pacific Corporation (UPC).[2]

As discussed below, we have examined the procedures used by the AAR to determine the following for 1999: (1) the railroad industry's current cost of debt capital; (2) its cost of common equity capital; (3) its cost of preferred equity capital; (4) its capital structure mix; and (5) the composite after-tax railroad industry cost of capital. As a result of various adjustments to the AAR's data, discussed below, we have determined that the 1999 railroad cost of capital is 10.8%.

DEBT CAPITAL

The AAR developed its 1999 current cost of debt using bond price data from Standard & Poor's Corporation *Bond Guide* and a Standard and Poor's data base. The AAR's cost of debt is based on the market value yields of the major forms of long-term debt instruments for the sample railroad holding companies listed above. These debt instruments include: (1) bonds, notes, and debentures (bonds); (2) equipment trust certificates (ETCs); and (3) conditional sales agreements (CSAs). The yields of these debt instruments are weighted based on their market values.

Cost of Bonds, Notes, and Debentures (Bonds)

The AAR used data contained in Standard & Poor's *Bond Guide* for the current cost of bonds, based on monthly prices and yields during 1999, for all issues (a total of 75) that were publicly traded during the year.[3] To determine the current (1999) market value of bonds, the AAR used these traded bonds and 78 additional bonds that were outstanding but not traded

[1] These criteria are as follows: (1) the company is listed on either the New York or American Stock Exchange; (2) the company paid dividends throughout the year; (3) the company's rail assets are greater than 50% of its total assets; and (4) the company has a debt rating of at least BBB (Standard & Poor's) and Baa (Moody's).

[2] These are the same companies included by the AAR and used in our 1998 cost of capital decision, *Cost 98*.

[3] The AAR did not include as a traded bond a medium-term note issued by NSC during 1999 with a face amount of $400 million (and a market value of $386.888 million). Adding the one NSC bond, we have used a total of 76 traded bonds in our calculations.

during 1999.[4] Continuing the procedure in effect since 1988, the AAR based the market value on monthly prices for all traded bonds and the face or par value ($1,000) for all bonds not traded during the year. The AAR computed the total market value of all outstanding bonds to be $21.06 billion. Based on the yields for the traded bonds, the AAR calculated the weighted average 1999 yield for all bond, notes, and debentures to be 7.11%.

As noted in footnotes 3 and 4, we have adjusted the AAR's market value. Our revised market value of all outstanding bonds is $20.86 billion. The weighted average yield of remains 7.11%, rounded to 7.1%. Our computations are shown in Tables 1 and 2 of the Appendix.

Cost of Equipment Trust Certificates (ETCs)

ETCs are not actively traded on secondary markets. Therefore, their costs must be estimated by comparing them to the yields of other debt securities that are actively traded. Following the practice in previous cost of capital proceedings, the AAR used government securities with maturities similar to these ETCs as surrogates for determining yields. After determining the 1999 yields for these government securities, the AAR added basis points[5] to these yields to compensate for the additional risks associated with the ETCs.

Seven new ETCs were issued during 1999, two each by BNSF and NSC, and three by CSX. There were 59 ETCs issued prior to 1999 that were outstanding during the year. All of these ETCs were rated "A" by Standard and Poor's.[6] The AAR used the seven new ETCs to develop the ETC yield spread for all of the "A" rated ETCs.[7] Using the yield spreads, the AAR calculated the weighted average cost of ETCs to be 6.59% and their market value to be $1.84 billion for 1999.[8]

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[4] Our calculations exclude from the non-traded count the NSC bond issued in 1999, discussed in footnote 3, above. This results in a total of 77 non-traded bonds. It should also be noted that one UPC non-traded bond was counted by the AAR, but its dollar value of $ 42.915 million was inadvertently excluded. We have included this dollar value in our computations.

[5] A basis point equals 1/100th of a percentage point.

[6] All ETC's were also rated "A" in 1998 and 1999.

[7] The AAR determined that 87 basis points should be added to government bond yields for ETCs rated A, based on the seven new ETCs issued by BNSF, CSX, and NSC.

[8] The AAR has approximated the market values of ETCs using the same procedures used in previous cost of capital determinations. These procedures are based on the use of standard

(continued...)

We have analyzed the ETC cost and market value evidence supplied by the AAR and have modified the average price for the seven new ETCs issued during 1999.[9] Based on this modification, we find the weighted average cost of ETCs to be 6.57% (rounded to 6.6%) and their market value to be $1.92 billion for 1999. A summary of our ETC computations is shown in Table 3 in the Appendix.

Cost of Conditional Sales Agreements (CSAs)

CSAs represent a small fraction (less than 1%) of total railroad debt. The cost of CSAs, however, can be estimated. The AAR used the yield spread between CSAs and ETCs for 1997 (the last year when a new CSA was issued) of 32 basis points to develop 1999 yield spread between CSAs and government bonds. This results in 119 basis points being added to government bond yields to develop the cost of CSAs.[10] Using this yield spread, and adding the 119 basis points for government bonds, the AAR determined the weighted average cost of CSAs for 1999 to be 6.82%. The AAR determined the market value for CSAs to be $246.5 million.[11] We have examined the cost and market value of the CSAs using the AAR's data, and have recomputed the yield to be 6.9%.[12] We agree with the AAR's determination that the current market value is $246.5 million. The results of our computations are shown in Table 4 in the Appendix.

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[8](...continued)
security industry formulas found in *Standard Security Calculation Methods*.

[9] The AAR averaged the price for these ETCs by using the price on 1-1-99 (which was zero, since they were not yet issued) and the price on 12-31-99. We used the actual dates when these ETCs were issued (February, April, and June) to determine average prices for the year. We believe that this provides a more accurate average price for these seven ETCs.

[10] This yield spread equals the yield spread for ETCs vs. government bonds of 87 basis points plus the yield spread between ETCs and CSAs of 32 basis points.

[11] The AAR approximated the market values of CSAs using the same procedures used in previous cost of capital determinations. These procedures are based on the use of standard security industry formulas found in *Standard Security Calculation Methods*.

[12] The difference is caused by the AAR miscalculating total interest expense for CSX.

Miscellaneous Debt and Capitalized Leases

As in previous cost of capital determinations, the AAR excluded the costs of capitalized leases and miscellaneous debt in its computation of the overall current cost of debt because these costs are not directly observable in the open market. Also in keeping with past practice, the AAR included the book value of leases and commercial paper in the overall market value of debt, which is used to determine the railroads' capital structure mix. The AAR noted that the cost of capitalized leases is generally higher than that of other debt, but it did not make any upward correction for the cost of those leases. The AAR determined that the market value for the capitalized leases and miscellaneous debt was $7.1 billion for 1999. We have examined the AAR's work papers and other evidence and have adjusted this figure to $7.05 billion.[13] Table 5 in the appendix shows our recalculations for capitalized leases and miscellaneous debt.

Total Market Value of Debt

The AAR determined that the total market value for all debt during 1999 was $30.25 billion. Due to the various adjustments discussed above, we have recomputed the total market value for all railroad debt in 1998 to be $30.09 billion.[14]

Flotation Costs of Debt

As in past cost of capital decisions, the AAR's calculation of the current cost of debt included a flotation cost factor consisting of costs associated with the issuance of new debt such as underwriters' fees, advertising costs, and legal fees. The AAR determined that flotation costs for debt equaled 0.16%. We have reviewed the AAR's calculations concerning flotation costs and find that the cost factors developed for the various components of debt are reasonable.[15]

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[13] Our adjustment is based on a correction to a mathematical error in the computation of capital leases.

[14] See Table 6 in the Appendix for a complete breakdown of the market value of debt.

[15] See Table 7 in the Appendix for these calculations. The AAR's flotation cost factors are based on data developed by Salomon Brothers for ETCs and studies by the Securities and Exchange Commission concerning flotation costs for issuances of new bonds. The estimated flotation cost for CSAs is the same as that used in prior proceedings.

Overall Current Cost of Debt

The AAR concluded that the railroads' current cost of debt for 1999 was 7.22%. Our calculations produce the same figure, rounded to 7.2%.[16] Our calculations are shown in Table 8 in the Appendix.

COMMON EQUITY CAPITAL

In previous cost of capital decisions, we have determined the cost of common equity using the Discounted Cash Flow (DCF) method. The AAR submitted evidence as to the current cost of equity capital using this procedure. This evidence is virtually identical to that furnished by the AAR in previous cost of capital proceedings.

Market Value of Common Equity

The AAR calculated the 1999 market value of common equity by multiplying the number of shares outstanding by the daily closing price for each trading day during the year for each of the sample railroad holding companies. The AAR determined that the average market value for the year 1999 was $53.21 billion. We have reviewed the AAR's calculations and have determined that this number is correct. Table 9 in the Appendix shows the calculations of the average market value of common equity and relative weights for each railroad.

Discounted Cash Flow (DCF) Method

The DCF method of determining the cost of common equity is used by the majority of state regulatory agencies and has been used by the Interstate Commerce Commission (ICC) and the Board for many years. Under the DCF method, the cost of common equity is the discount rate that makes the present value of expected returns from holding a stock (dividends and price appreciation) equal to the current market value of that stock. The DCF method considers two variables — dividend yield and expected growth in earnings per share.[17]

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[16] This is significantly higher than the 1998 cost of debt (6.6%).

[17] In *Railroad Cost of Capital - 1982*, 367 I.C.C. 662 (1983) *(Cost 82)*, the ICC developed the following DCF formula:

$K = [D_{(O)} \times (1 + g/2)/P_{(O)}] + g$, where:

K = cost of common equity
$D_{(O)}$ = annual dividend

(continued...)

Dividend Yield

The AAR computed the 1999 average dividend yield for the composite group of railroads using the same method that it employed in past cost of capital determinations, *i.e.*, weighting each company's monthly dividend yield on the basis of its prorated share of the total market value for the composite for each day during that month based on daily closing prices. The AAR developed a composite dividend yield of 1.9% for 1999. Making minor adjustments to the AAR's data, we have recomputed the dividend yield to be 1.91%. This figure is 0.08 of a percentage point higher than the 1998 dividend yield (1.83%). Our calculations of the dividend yield are shown in Table 10 in the Appendix.

Growth Rate

The AAR used the earnings per share growth rate forecasts published monthly by the Institutional Brokers Estimate System (IBES) throughout 1999.[18] The AAR developed growth rates for each of the railroad holding companies that make up the composite by averaging the IBES forecasts for that company. It then weighted each company's growth rate according to its prorated share of the market value of the total railroad composite to arrive at a single projected growth rate. The AAR concluded that this composite growth rate was 10.89%, based on a truncated average of the forecasts.[19] We agree that the truncated composite growth rate is 10.89%. This is 0.29 of a percentage point lower than the 11.18% growth rate developed in the

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[17](...continued)
$P_{(O)}$ = current stock price
g = expected growth rate

This formula assumes that, at the start of the year, an investor would require a return on equity (K) equal to $[D_{(O)}/P_{(O)}] + g$, where $D_{(O)}/P_{(O)}$ represents the average dividend yield expected for the year and g represents an estimate of the expected growth rate. At the end of the year, the investor would be concerned with projected returns for the following year and would require a K equal to $[D_{(O)} \times (1+g)/P_{(O)}] + g$, which would allow for dividend growth for the following year. The average of these two formulas produces this DCF formula.

[18] As has been the case since the findings in *Railroad Cost of Capital - 1987*, 4 I.C.C.2d 621 (1988), we have relied on the use of consensus analyst 5-year earnings per-share growth rate data published by IBES to develop the growth rate estimates used in the DCF approach. IBES data include growth rate estimates from essentially all major brokerage firms.

[19] IBES provides a simple average, the highest forecast, and the lowest forecast for each railroad. The AAR excluded the highest and lowest forecasts to arrive at the truncated average. This is the same procedure that has been followed in previous cost of capital determinations.

1998 cost of capital decision. Our growth rate calculations are shown in Tables 11 (truncated) and 12 (nontruncated) of the Appendix.

Flotation Costs

As with the issuance of new debt instruments, flotation costs are also incurred with the issuance of new equity securities. In *Adequacy of Railroad Revenue (1979 Determination)*, 363 I.C.C. 344, 352 (1979), the ICC concluded that flotation costs for equity capital should not be considered unless new equity had, in fact, been issued. This conclusion has been reaffirmed in subsequent cost of capital decisions. Because no railroad issued any new common equity capital during 1999, no flotation cost factor has been included in the DCF formula.

Conclusion - Cost of Common Equity Capital

Using a truncated average IBES growth rate (g) forecast of 10.89%, a dividend yield ($D_{(O)}/P_{(O)}$) of 1.90%, and the Board's DCF formula, the AAR determined the cost of common equity for 1999 to be 12.89%. Due to our slight adjustments to the AAR's data, we have computed the cost of common equity to be 12.9%. This figure is 0.2 of a percentage point lower than the cost of common equity for 1998 (13.1%).[20]

PREFERRED EQUITY

Preferred equity has some of the characteristics of debt and some of the characteristics of equity. Essentially, preferred issues are like common stocks in that they have no maturity dates and represent ownership in the company (usually with no voting rights attached). They are like debt in that they usually have fixed dividend payments (akin to interest payments).

The AAR examined the 3 preferred stock issues of the sample railroad holding companies,[21] and determined their cost using the dividend yield method (dividends divided by market price). The AAR computed the market value of preferred stock by multiplying the average quarterly price for each issue by the number of shares outstanding during the quarter. This is the same procedure used in previous cost-of-capital determinations. The AAR computed the market value and current cost of preferred equity during 1999 to be $1.54 billion. This is higher than the $1.18 billion figure for 1998. The AAR computed the cost of preferred equity to be 6.25%, slightly higher than the 6.19% figure for 1998.

[20] See Table 13 in the Appendix for our calculation of the cost of common equity.

[21] The three railroad holding companies with preferred stock are KCS, NSC, and UPC.

We have determined that the AAR's computations are correct. Table 14 in the Appendix contains the calculations of the cost of preferred equity, rounded to 6.3%.

CAPITAL STRUCTURE MIX

Our computations of market values and the capital structure mix for 1999 are shown in Table 15 in the Appendix. We have determined that the market value of bonds, preferred stock, and common equity for 1999 was $84.84 billion. The percentage share of common equity increased from 62.6% in 1998 to 62.7% in 1999. The percentage share of debt decreased from 36.0% in 1998 to 35.5% in 1999. The percentage share of preferred equity increased from 1.4% in 1998 to 1.8% in 1999.

COMPOSITE COST OF CAPITAL

Based on the evidence furnished in the record, and our adjustments to that evidence discussed above, we conclude that the 1999 composite after-tax cost of capital for the railroad industry, as set forth in Table 16 in the Appendix, was 10.8%. The procedure used to develop the composite cost of capital is consistent with the Statement of Principle established by the Railroad Accounting Principles Board: "Cost of capital shall be a weighted average computed using proportions of debt and equity as determined by their market values and current market rates."[22] The 1999 cost of capital is 0.1 percentage point higher than the 1998 cost of capital (10.7%).

CONCLUSIONS

We find that for 1999:

1. The current cost of railroad debt equals 7.2%.
2. The cost of common equity equals 12.9%.
3. The cost of preferred equity equals 6.3%.
4. The capital structure mix of the railroads equals 35.5% debt, 62.7% common equity, and 1.8% preferred equity.
5. The composite railroad industry cost of capital equals 10.8%.

Environmental and Energy Considerations

We conclude that this action will not significantly affect either the quality of the human environment or the conservation of energy resources.

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[22] Railroad Accounting Principles Board *Final Report*, Vol. 1, (1987).

Regulatory Flexibility Analysis

Pursuant to 5 U.S.C. 605(b), we conclude that our action in this proceeding will not have a significant economic impact on a substantial number of small entities. The purpose and effect of the action are merely to update the annual railroad industry cost of capital finding. No new reporting or other regulatory requirements are imposed, directly or indirectly, on small entities.

It is Ordered:

1. This decision is effective on June 12, 2000.

2. This proceeding is discontinued.

By the Board, Chairman Morgan, Vice Chairman Burkes, and Commissioner Clyburn.

Vernon A. Williams
Secretary

APPENDIX

Table 1
1999 Traded & Untraded Bonds / Market Value By Company

Railroad	Trades vs Untraded	Number	Market Value ($ in Millions)	% Market Value to All Bonds
BNSF	Traded	24	$2,982.789	78.72%
	Untraded	19	806.179	21.28%
	Total	43	3,788.968	
CSX	Traded	12	1,915.226	41.22%
	Untraded	22	2,731.195	58.78%
	Total	34	4,646.421	
KCS	Traded	4	397.604	89.96%
	Untraded	4	44.385	10.04%
	Total	8	441.989	
NSC	Traded	16	5,559.537	99.51%
	Untraded	2	27.250	0.49%
	Total	18	5,586.787	
UPC	Traded	20	4,305.570	67.27%
	Untraded	30	2,095.141	32.73%
	Total	50	6,400.711	
COMPOSITE	Traded	76	15,160.726	72.66%
	Untraded	77	5,704.150	27.34%
	Total	153	20,864.876	

Table 2
Calculation of 1999 Value and Cost of Bonds, Notes, & Debentures

Railroad	Number of Traded Issues	Market Value Traded Issues ($Millions)	Current Cost	Weighted Cost
BNSF	24	$2,982.789	7.206%	1.42%
CSX	12	1,915.226	7.054%	0.89%
KCS	4	397.604	7.488%	0.20%
NSC	16	5,559.537	7.007%	2.57%
UPC	20	4,305.570	7.168%	2.04%
Composite	**76**	**$15,160.726**		**7.11%**
			Rounded to	**7.1%**

Table 3
Calculation of 1999 Value and Cost of Equipment Trust Certificates

Railroad	No. of Issues	Market Value ($000)	Yield %	Weighted $ Yield ($000)
BNSF Pre-1999 Issues	11	$332,460	6.63%	$22,055.4
Issued in 1999	2	101,720	6.72%	6,833.6
Total	13	434,180	6.65%	28,888.9
CSX Pre-1999 Issues	16	536,993	6.61%	35,506.0
Issued in 1999	3	138,188	6.19%	8,552.5
Total	19	675,181	6.53%	44,058.4
KCS Pre-1999 Issues	4	74,855	6.59%	4,932.9
Issued in 1999	0	0	0.00%	0.0
Total	4	74,855	0.00%	4,932.9
NSC Pre-1999 Issues	18	289,791	6.61%	19,155.2
Issued in 1999	2	121,656	6.56%	7,975.8
Total	20	411,447	6.59%	27,131.0
UPC Pre-1999 Issues	10	324,661	6.51%	21,132.2
Issued in 1999	0	0	0.00%	0.0
Total	10	324,661	6.51%	21,132.2
Composite Pre-1999 Issues	**59**	**$1,558,760**	**6.59%**	**$102,781.7**
1999 Issues	**7**	**$361,564**	**6.46%**	**$23,361.8**
Total	**66**	**$1,920,324**	**6.57%**	**$126,143.5**
		Rounded to	**6.60%**	

Table 4
Calculation of 1999 Value and Cost of Conditional Sales Agreements

Railroad	Number of Issues	Market Value ($000)	Current Cost	Weighted Cost
CSX	2	$150,904	6.980%	4.273%
UPC	5	95,627	6.836%	2.652%
Composite	**9**	**$246,531**		**6.924%**
			Rounded to	**6.900%**

Table 5
Calculation of 1999 Value of Capitalized Leases & Miscellaneous Debt

Railroad	Capitalized Leases ($000)	Miscellaneous Debt ($000)	Total Other Debt ($000)
BNSF	$804,431	$828,884	$1,633,315
CSX	122,273	1,113,005	1,235,278
KCS	3,951	250,000	253,951
NSC	339,464	1,756,672	2,096,136
UPC	1,385,043	450,608	1,835,651
Composite	**$2,655,162**	**$4,399,169**	**$7,054,331**

Table 6
Calculation of 1999 Market Value of Debt

Type of Debt	Market Value of Debt (000)	Percentage of Total Market Value (Excluding Miscellaneous Debt)
Bonds, Notes, & Debentures	$20,864,876	90.59%
ETCs	1,920,324	8.34%
CSAs	246,531	1.07%
Subtotal	23,031,731	100.00%
Capitalized Leases/Miscellaneous Debt	7,054,331	NA
Total Market Value of Debt	**$30,086,062**	**NA**

Table 7
Calculation of 1999 Flotation Cost For Debt

Type of Debt	Market Weight (Excludes Miscellaneous Debt)	Flotation Cost	Weighted Average Flotation Cost
Bonds, Notes, & Debentures	90.59%	0.16%	0.145%
ETCs	8.34%	0.13%	0.011%
CSAs	1.07%	0.13%	0.001%
Total	**100.00%**		**0.157%**
Rounded to			**0.160%**

Table 8
Calculation of 1999 Cost of Debt

Type of Debt	Percentage of Total Market Value (Excludes Miscellaneous Debt)	Debt Cost	Weighted Debt Cost (Excluding Miscellaneous Debt)
Bonds, Notes, & Debentures	90.59%	7.110%	6.44%
ETCs	8.34%	6.569%	0.55%
CSAs	1.07%	6.924%	0.07%
Subtotal	100.00%	-	7.06%
Flotation Cost			0.16%
Weighted Average Cost of Debt	-	-	**7.22%**
		Rounded to	**7.2%**

Table 9
Calculation of 1999 Market Value and Weights of Common Equity

Railroad	Average Market Value (000)	Average Market Weight
BNSF	$14,568,337.5	27.38%
CSX	9,230,070.5	17.35%
KCS	5,841,765.0	10.98%
NSC	10,564,494.1	19.85%
UPC	13,005,241.6	24.44%
COMPOSITE	**$53,209,908.7**	**100.00%**

Table 10
Calculation of 1999 Dividend Yields for Common Equity

Railroad	Average Weight In Composite	Dividend Yield	Weighted Dividend Yield
BNSF	27.38%	1.54%	0.42%
CSX	17.35%	2.86%	0.50%
KCS	10.98%	0.31%	0.03%
NSC	19.85%	2.94%	0.58%
UPC	24.44%	1.54%	0.38%
COMPOSITE	**100.00%**		**1.91%**

Table 11
Calculation of 1999 Truncated Growth Rates

Railroad	Average Weight In Composite	Truncated Average Growth Rate	Contribution To Truncated Average Growth Rate
BNSF	27.38%	10.35%	2.83%
CSX	17.35%	10.07%	1.75%
KCS	10.98%	14.03%	1.54%
NSC	19.85%	10.23%	2.03%
UPC	24.44%	11.19%	2.73%
COMPOSITE	**100.00%**		**10.89%**

Table 12
Calculation of 1999 Nontruncated Growth Rates

Railroad	Average Weight In Composite	Nontruncated Average Growth Rate	Contribution To Nontruncated Average
BNSF	27.38%	10.43%	2.86%
CSX	17.35%	10.01%	1.74%
KCS	10.98%	14.07%	1.54%
NSC	19.85%	10.09%	2.00%
UPC	24.44%	11.19%	2.73%
COMPOSITE	**100.00%**		**10.88%**

Table 13
Computation of the 1999 Cost of Common Equity

Dividend Yield	1.91%	
Dividend Yield Times 1+½ Growth Rate	1.91% times 1.05445	2.01%
Growth Rate		10.89%
Cost of Equity		**12.90%**

Table 14
Computation of 1999 Cost & Market Value of Preferred Stock

Railroad	Div $	Value Per Share	Div. Yield	Shares (000)	Market Value (000)	Market Weight	Weighted Yield
NSC	2.60	41.60	6.25%	920.2	38,280	2.5%	0.16%
KCS	1.00	14.42	6.93%	242	3,493	0.2%	0.02%
UPC	3.125	50.00	6.25%	30,000	1,500,000	97.3%	6.08%
COMPOSITE					**$1,541,773**	**100.0%**	**6.25%**
						Rounded to	**6.3%**

Table 15
Computation of 1999 Capital Structure Mix

Type of Capital	Market Value (000)	Weight
Debt	$30,086,062.0	35.5%
Preferred Equity	1,541,773.0	1.8%
Common Equity	53,209,908.7	62.7%
TOTAL	**$84,837,743.7**	**100%**

Table 16
1999 Cost of Capital Computation

Type of Capital	Cost (Rounded)	Weight	Weighted Average
Long-Term Debt	7.2%	35.46%	2.55%
Preferred Equity	6.3%	1.82%	0.11%
Common Equity	12.90%	62.72%	8.09%
COMPOSITE COST OF CAPITAL		**100.0%**	**10.76%**
		ROUNDED TO	**10.8%**